



Staff

OPHTHALMOLOGY

AARON S. GREEN, M.D.
MARTIN I. GREEN, M.D.
EINAR V. BLAK, M.D.
VINKO V. SUGLIAN, M.D.
DAVID KADESKY, M.D.
WILLIAM R. JEPSON, M.D.

OTOLARYNGOLOGY

JOHN H. CHILDREY, M.D.
ERNST WOLFES, M.D.

**Completely equipped for the surgical
and medical care of all cases pertaining
to ophthalmology and otolaryngology.**

ADDRESS ALL COMMUNICATIONS TO THE SUPERINTENDENT

GREENS' EYE HOSPITAL

BUSH STREET AT OCTAVIA • SAN FRANCISCO • TELEPHONE West 4300

FRENCH HOSPITAL

Geary Boulevard and Fifth Avenue
SAN FRANCISCO, CALIFORNIA

HENRY J. BAZERQUE, *President*

LAURENT LALANNE, *Secretary*

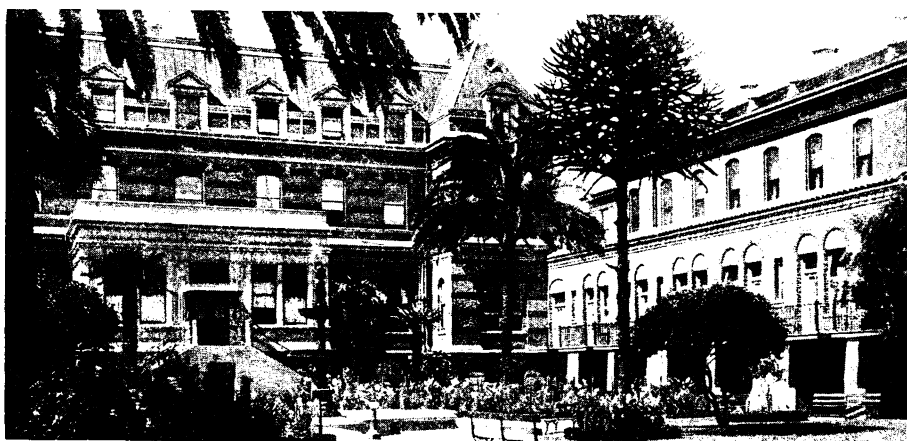
V. LABRUCHERIE, *Superintendent*

W. L. ROGERS, M.D., *Chief of Staff*

GRACE GREY, R.N., *Superintendent of Nurses*

A. H. McNULTY, M.D., *Chairman of the Staff*

COLEMAN A. BLOCK, M.D., *Secretary of Staff*



A general hospital of 225 beds operating an accredited school of nursing, admitting all classes of patients except those suffering from mental diseases. Organized in 1851 and is operated by the French Mutual Benevolent Society, through a Board of Directors, a chief executive officer and staff. Accredited for intern training by the American Medical Association and approved by the American College of Surgeons.

MEDICAL STAFF

Medicine

AIMÉ N. FREGEAU, M.D.
FRANCIS ROCHEX, M.D.
JOSEPH H. D. ROGER, M.D.
ALEX THIBODEAU, M.D.
E. S. KILGORE, M.D., Consultant in General Medicine
HAROLD HAND, M.D., Consultant in Gastro-Enterology
THOMAS G. INMAN, M.D., Consultant in Neuropsychiatry
MELVIN E. SOMERS, M.D., Associate Consultant in Neuropsychiatry
JAY JACOBS, M.D., Dermatologist
CABOT BROWN, M.D., Consultant in Lung Diseases

Surgery

ASA W. COLLINS, M.D., F.A.C.S., Chief-Emeritus
H. M. GILFILLAN, M.D.
W. L. ROGERS, M.D.
E. B. TOWNE, M.D., Consultant in Neurological Surgery
EDMUND J. MORRISSEY, M.D., Consultant in Neurological Surgery
FRANK W. LUSIGNAN, M.D., Consultant in Neurological Surgery
FREDERICK A. FENDER, M.D., Consultant in Neurological Surgery
GEORGE WARREN PIERCE, M.D., Consultant in Plastic Surgery

Radiology

LLOYD B. CROW, M.D., Director

Urology

A. H. McNULTY, M.D.
ALVIN E. CERP, M.D.
AUGUST SPITALNY, M.D.
OSCAR F. NOLAN, M.D., Consultant
WILLIAM A. SUMNER, M.D., Consultant

Pathology

DAVID A. WOOD, M.D., Director

Pediatrics

BRADFORD F. DEARING, M.D.
M. STALLINGS, M.D., Pediatrics, Allergy

Anesthesia

HERMAN MARCUS, M.D., Chief
O. K. ALLEN, M.D.

House Visiting Department

COLEMAN A. BLOCK, M.D.
LOUIS D. RONCOVIERI, M. D.

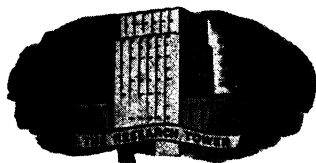
Orthopedics

FRANK A. LOWE, M.D.
LEON O. PARKER, M.D.

Ophthalmology and Otolaryngology

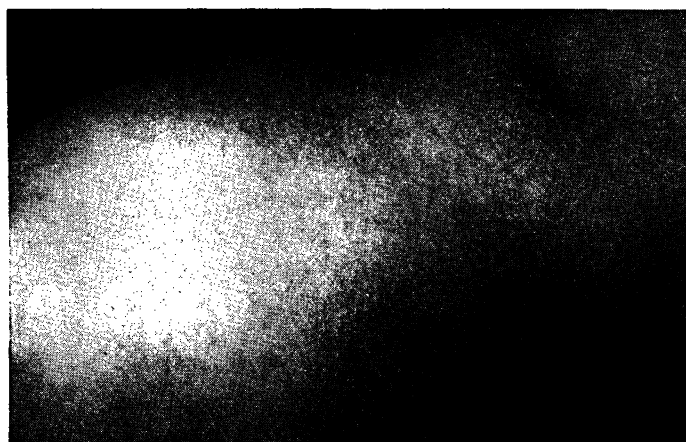
E. C. FABRE-RAJOTTE, M.D., Chief
VICTOR d'ERCOLE, M.D., Associate
C. B. COWAN, M.D., Associate
Obstetrics and Gynecology
CHESTER L. COOLEY, M.D.
M. A. FRANCOZ, M.D.
ELLIS D. HARMON, M.D.
HANS VON GELDERN, M.D., Consultant

DEFICIENCIES IN THE AVITAMINOSES

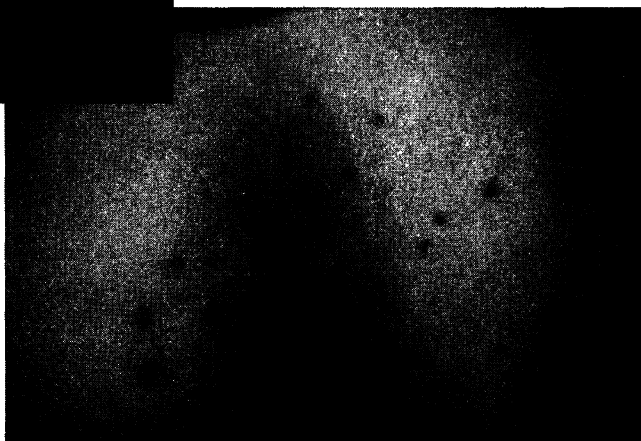


This page is the first of a series on vitamin deficiencies presented by the research division of The Upjohn Company, not merely because of the profession's widespread interest in the subject, but also because of the service which these reproductions might render toward earlier recognition of vitamin deficiency states.

The Cutaneous Manifestations of Vitamin A Deficiency



Goosepimple-like papules, occasionally seen in vitamin A deficiency, occur most frequently on thighs and arms, but may appear anywhere on the skin. More common than the acneform eruption.



Acneform papules of vitamin A deficiency. Pustulation is rare, but crusts and scales may be observed. Dryness of involved skin precedes both types of lesions.

Although the classic manifestations of vitamin A deficiency are familiar to every physician, many of these represent late stages of deprivation. In some cases, cutaneous changes may provide an opportunity for earlier recognition. These cutaneous changes, when fully developed, consist of two distinct types of eruptions—a goosepimple-like papule and an acneform lesion in which pustulation rarely occurs. The absence of perspiration is due to atrophy of the sweat glands and keratinizing metaplasia of the ducts. The papular cornified lesions are due to the keratinization of the sebaceous glands and hair

follicles. In some subjects, accentuation in pigmentation due to an increase in melanin and melanin-building pigments is observed. Unlike the ocular manifestations of vitamin A deficiency, the skin lesions respond slowly to specific therapy, requiring from 4 to 12 weeks for their eradication.

A two-page insert, presenting full-color reproductions of vitamin A deficiency lesions, and so organized that it may be easily retained for future reference, appears in the January 20 issue of the Journal of the American Medical Association.



UPJOHN

ALPHABETICAL LIST OF ADVERTISERS

Members of the California Medical Association can aid their JOURNAL and the firms who advertise therein, by coöperation as indicated in the footnote on this page

	PAGE		PAGE		PAGE
Acousticon	40	Greens' Eye Hospital.....	2 Cover	Park Sanitarium.....	30
Adams Mineral Springs.....	36	Hospitals and Sanatoriums.....	10	Parke, Davis & Co.....	11
Alexander Sanatorium, Inc., The	44	Hotel del Coronado.....	20	Petrolagar	13
Alum Rock Sanatorium.....	42	Hotel Sir Francis Drake.....	26	Philip Morris & Co., Ltd., Inc.....	19
American Can Company.....	37	Hynson, Westcott & Dunning, Inc.	36	Physicians' Casualty Association and Physicians' Health Association	22
Barry Co., The James H.....	41	Jenkel-Davidson Optical Co.....	39	Postgraduate Instruction.....	9
Baxter, Inc., Don.....	33	King Ambulance Company.....	24	Pottenger Sanatorium.....	24
Bolin, M. D., Zera E., Pathological Service.....	43	La Loma Feliz.....	12	Riggs Optical Company.....	30
Broemmel's Laboratories.....	3	Las Encinas Sanitarium.....	40	Saint Francis Hospital.....	44
Butler Building.....	3	Lederle Laboratories, Inc.....	17	Sharp & Dohme.....	3 Cover
California Sanatorium.....	38	Lilly & Co., Inc.....	32	S. M. A. Corporation.....	21
Calso Water Company.....	23	Livermore Sanitarium.....	42	Smith-Dorsey Company, The.....	38
Canyon Sanatorium.....	22	Los Angeles Tumor Institute.....	26	Smith, Kline & French Laboratories	29
Ciba Pharmaceutical Products, Inc.	23	Luzier's	24	Solland, Costolow, and Meland, Doctors	26
Classified Advertisements.....	12	Maltine Company, The.....	5	Squibb & Sons, E. R.....	45
Coca-Cola	16	Mead Johnson & Co.....	35	Stacey, J. W., Medical Books.....	15
Colfax School for the Tuberculous	46	Medical Placement Bureau.....	40	St. Luke's Hospital.....	34
Compton Sanitarium and Las Campanas Hospital.....	39	Medical Protective Co., The.....	20	St. Mary's Hospital.....	46
Cook County Graduate School of Medicine	9	Morning Milk Co.....	27	Stuart Oxygen Company.....	18
Corn Products Refining Co.....	31	National Professional Bureau, Ltd.	9	Summit Medical Building.....	15
Crocker First National Bank.....	43	New York Polyclinic Medical School and Hospital.....	9	Twin Pines.....	10
Cutter Laboratory.....	4 Cover	Noble Placement Agency.....	7	Upjohn Company, The.....	1
Doctors' Business Bureau.....	25	Officers of the California Medical Association.....	2, 4, 6	Upsher Smith Co.....	15
"Four Fifty Sutter".....	28	Officers of Miscellaneous Medical Associations	6	Westinghouse X-Ray Co.....	14
Franklin Hospital.....	34	Owl Drug Co., The.....	5	Wyeth & Brothers, Inc., John.....	7
French Hospital.....	2 Cover			Yates Reporting Service.....	12

COÖPERATE WITH YOUR ADVERTISERS

CALIFORNIA AND WESTERN MEDICINE, the official publication of your Association, is made possible in part by reason of the coöperation of business firms and institutions who use advertising space. Their purpose is to direct attention to their products and services to present and future patrons.

Members and readers are urged to give preference to and to patronize these advertisers. When ordering goods, mention CALIFORNIA AND WESTERN MEDICINE.

This coöperation will please the advertiser, increase advertising income, and enable your Association to increase the value of this JOURNAL to members and readers.

A SERVICE AGENCY—FOR READERS

The JOURNAL of the California State Medical Association and the Coöperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital, or we will refer your request to the proper department of the A. M. A. for reply.

We invite and urge you to use this Service. It is absolutely free to every member of the California Medical Association. The Coöperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

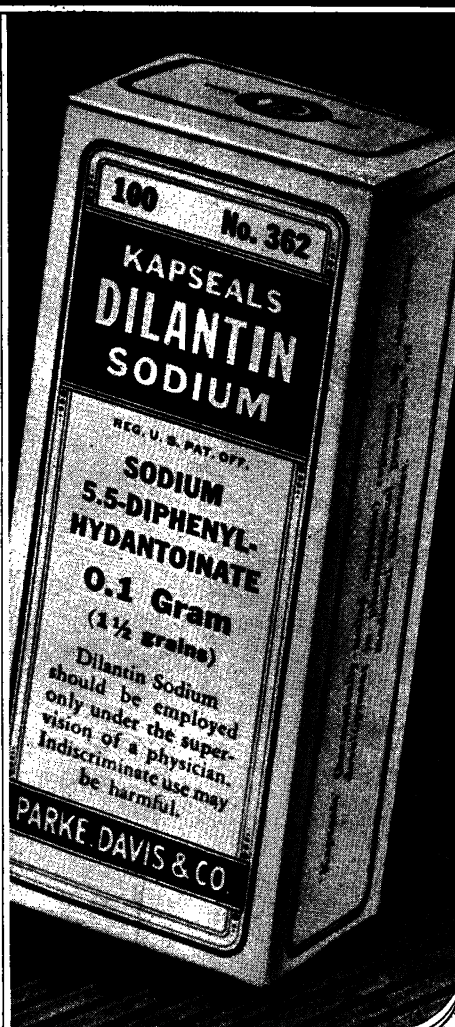
Perhaps you want a certain kind of instrument which is not advertised in CALIFORNIA AND WESTERN MEDICINE, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. CALIFORNIA AND WESTERN MEDICINE and the A. M. A. Service Bureau desire to serve you.

AN ANTICONVULSANT FOR THE TREATMENT OF EPILEPSY

KAPSEALS DILANTIN SODIUM^{*}

DILANTIN SODIUM (sodium 5,5-diphenylhydantoinate), an anticonvulsant with little or no hypnotic effect, is supplied for the treatment of epileptics not responsive to other medication. Extensive clinical use indicates that Dilantin Sodium will prevent, or greatly decrease the frequency and severity of, convulsive seizures in a majority of epileptics. However, since the significance of observed reactions to Dilantin Sodium is not fully established, patients receiving the drug should be closely observed.

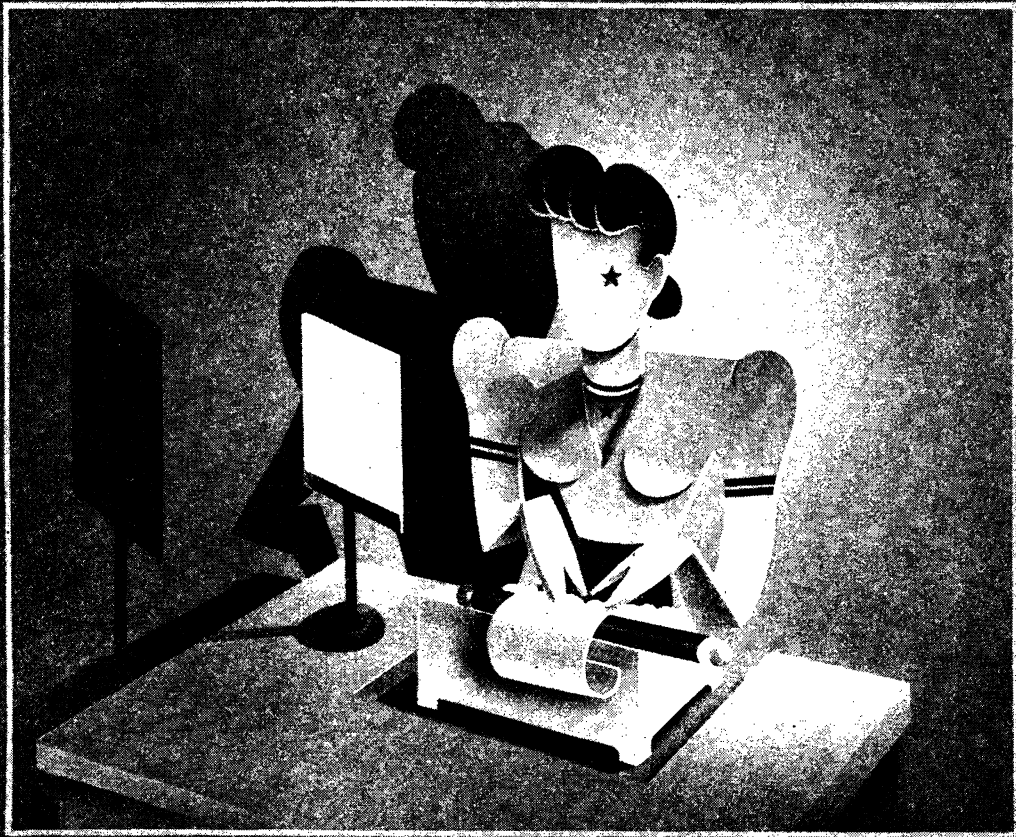
Dilantin Sodium is accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in New and Nonofficial Remedies.



^{*} The name 'Dilantin' Sodium designates the sodium salt of diphenyl hydantoin. 'Dilantin' Sodium was formerly known as 'Dilantin,' a term now designating the basic substance, diphenyl hydantoin. Dilantin Sodium is available as 0.1 Gram (1½-grains) and 0.03 Gram (½-grain) Kapseals, in bottles of 100, 500 and 1000.

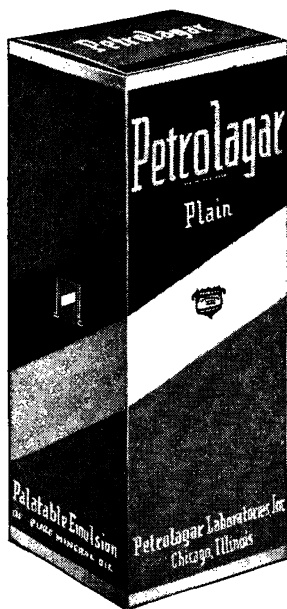
PARKE, DAVIS & COMPANY - Detroit, Michigan

The World's Largest Makers of Pharmaceutical and Biological Products



For Sedentary Workers--

★★ **Petrolagar**



Helps to establish and maintain a regular Habit Time of Bowel Movement. One tablespoonful of Petrolagar Plain, taken morning and night, promotes the formation of a soft, comfortably passed stool.

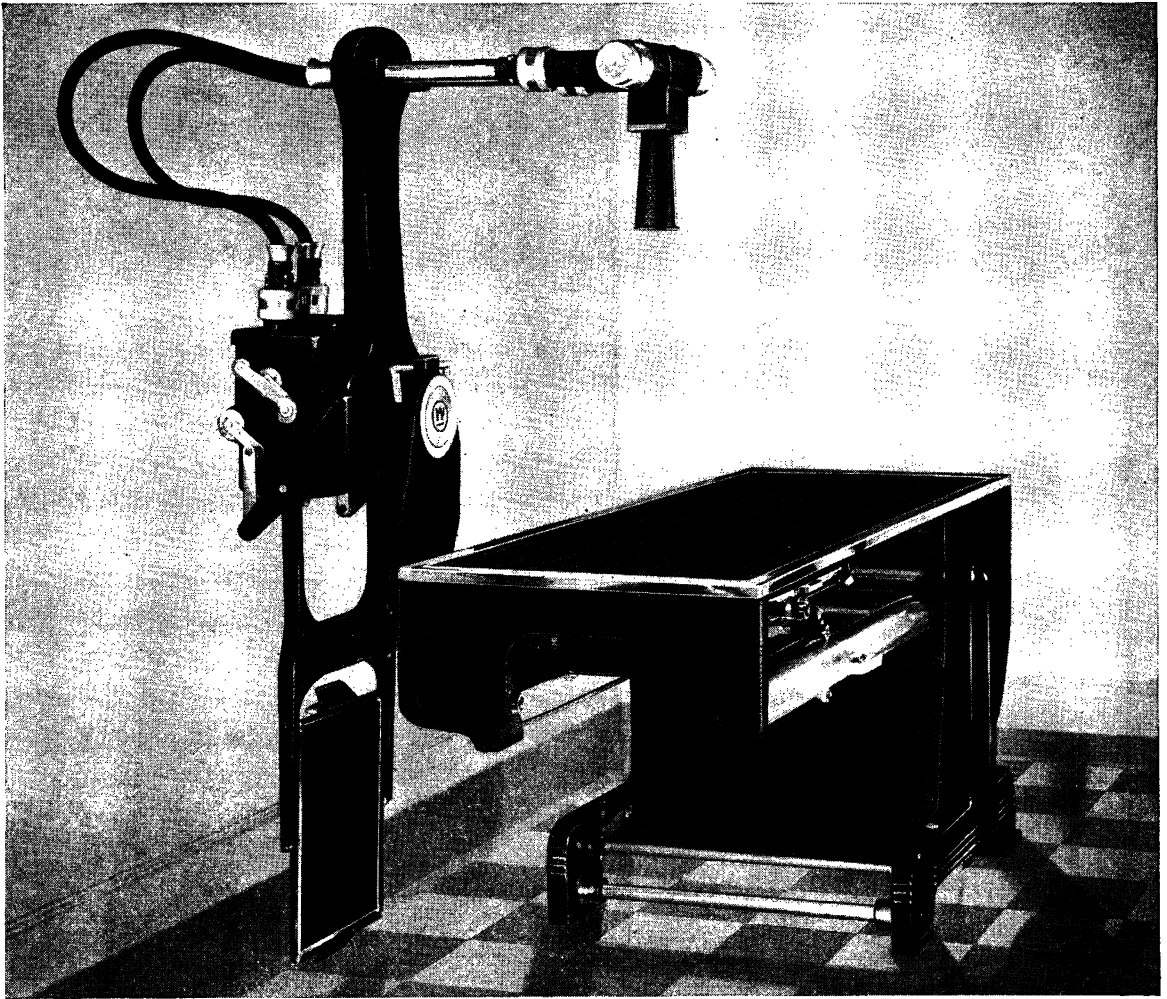
Petrolagar is especially useful in the treatment of chronic constipation. It may be taken over an extended period of time without increasing the dosage.

Any of the Five Types of Petrolagar will be sent to physicians on request.



Petrolagar . . . Liquid petrolatum 65 cc. emulsified with 0.4 Gm. agar in a menstruum to make 100 cc.

Petrolagar Laboratories, Inc. • 8134 McCormick Boulevard • Chicago, Illinois



SIMPLEX

The new all-purpose diagnostic **SIMPLEX** carries simplicity of operation and technique to a new high—at a price that sets an all time low among really fine x-ray equipment.

See the Simplex at your nearest Westinghouse X-Ray office . . . put it to every test and compare it by any standard . . . or read about its remarkable features in bulletin 380.

You will find it an interesting experience, that brings you a new conception of 1940 values in good x-ray apparatus.

—Westinghouse X-Ray Co., Inc.—

LONG ISLAND CITY, NEW YORK



Your representative may bring me the new Simplex Bulletin . . . ☐

Just mail it to me; no calls, please. ☐

(and your wishes will be respected, Doctor)

A concerted plan of attack on—

PNEUMONIA

THE OUTLOOK FOR THE TREATMENT OF PNEUMONIA, this Winter, is better than ever. DR. RUSSELL L. CECIL, (discussion of "Sulfapyridine in the Treatment of Pneumonia"—PLUMMER, N. and ENSWORTH, H. K., J. A. M. A., Nov. 18, 1939, 113:1853) summarizes it very aptly:

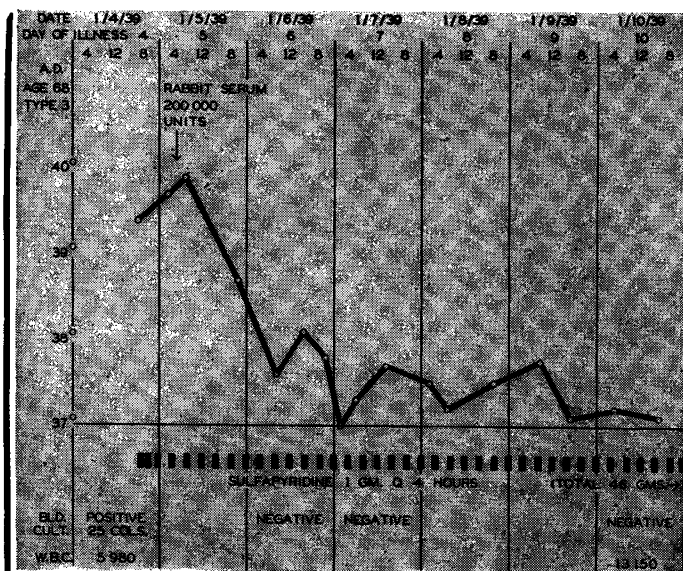
"... We have a double-barreled gun for the treatment of pneumonia, and whether we need both barrels or only one remains to be seen. DR. BULLOWA and DR. MACLEOD expressed it very well when they said that serum fortifies the pneumonia patient; sulfapyridine injures the pneumococcus. For the present we must keep our serum handy and use it in severe cases along with sulfapyridine, and we must continue to type our pneumonias in order that we may get all the better oriented with regard to this new form of therapy."

Unless either agent is specifically contraindicated, the combination of drug and serum should always be employed when:

- 1 — treatment is begun after the third day;
- 2 — two or more lobes are involved;
- 3 — the patient is over 40;
- 4 — the patient is pregnant or in the first week of the puerperium;
- 5 — blood culture is positive.

When used simultaneously with drug, smaller amounts of serum may be employed.

Information on sulfapyridine or pneumonia serum on request.



"Sulfapyridine in the Treatment of Pneumonia"—Plummer, N. and Ensworth, H. K.

Lederle

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

San Francisco: 450 Sutter Street
Los Angeles: 714 W. Olympic Boulevard
Lederle Laboratories Depot
1216 S. W. Stark Street, Portland, Oregon

SIGNIFICANT CLINICAL RESULTS IN A SERIES OF SMOKING TESTS

FACTS FROM . . . *Laryngoscope, Feb. 1935*
Vol. XLV, No. 2, 149-154

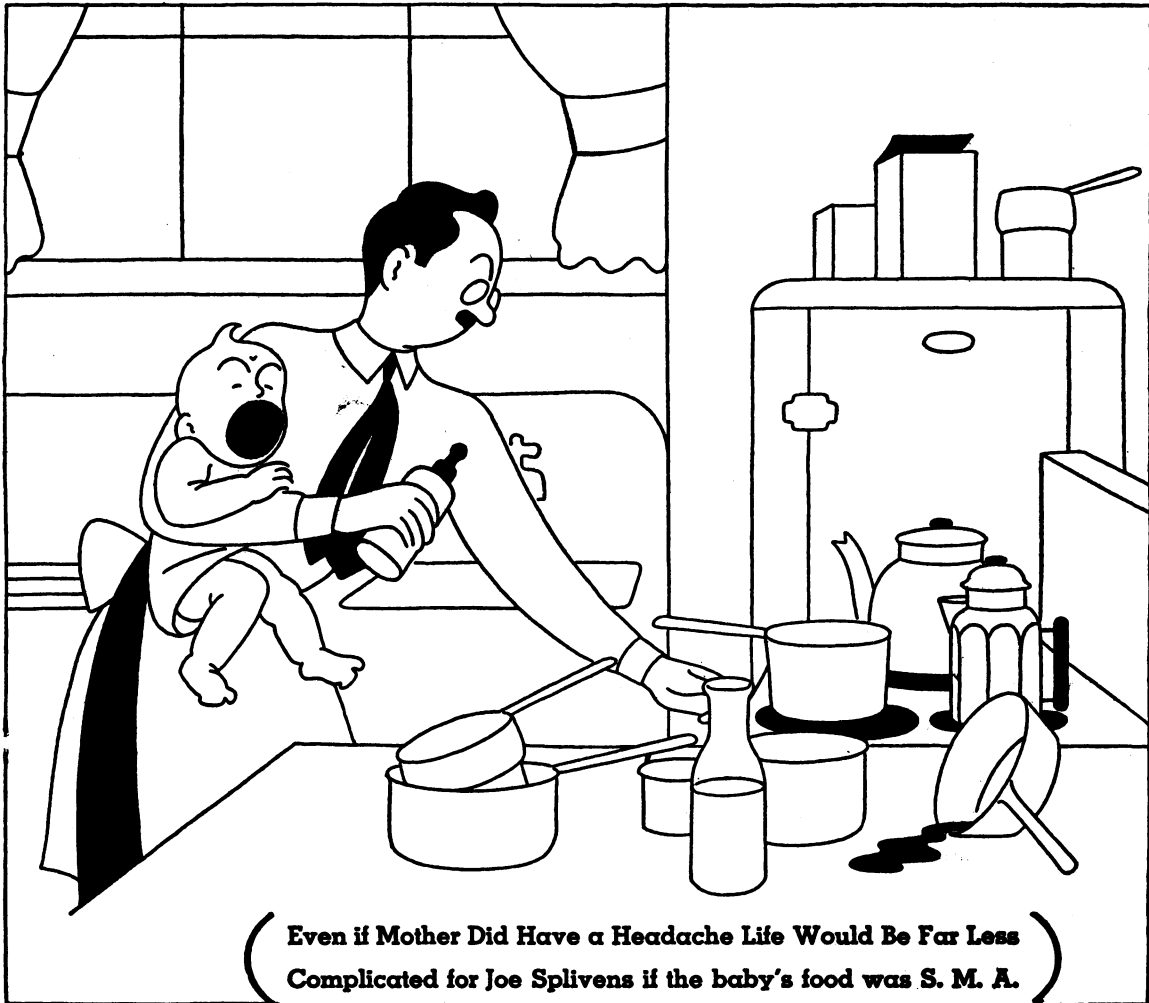
(1) At the beginning of the experiment, 73.7% of the cases showed a congested condition of the pharynx and larynx due to smoking.

(2) On changing to Philip Morris, 62.3% of the cases cleared. The other 37.7% showed considerable improvement.

(3) On changing back to cigarettes made by the ordinary method, 80% showed a return of congestion within one week!

REPRINTS of published studies on the irritant properties of cigarettes are available. Address Philip Morris & Co. Ltd. Inc., 119 Fifth Ave., N.Y.

CALORIE COMPUTATIONS—No. 1



(Even if Mother Did Have a Headache Life Would Be Far Less
Complicated for Joe Splivens if the baby's food was S. M. A.)



S. M. A. is easy to prepare. Simply dilute according to directions (furnished to physicians), adjust to proper temperature and feed.

It is not necessary to modify S. M. A. for the same reason that it is unnecessary to modify breast milk.

S. M. A. is economical and easy to prepare.

NORMAL INFANTS RELISH S. M. A. — DIGEST IT EASILY AND THRIVE ON IT

S. M. A. is a food for infants—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride;



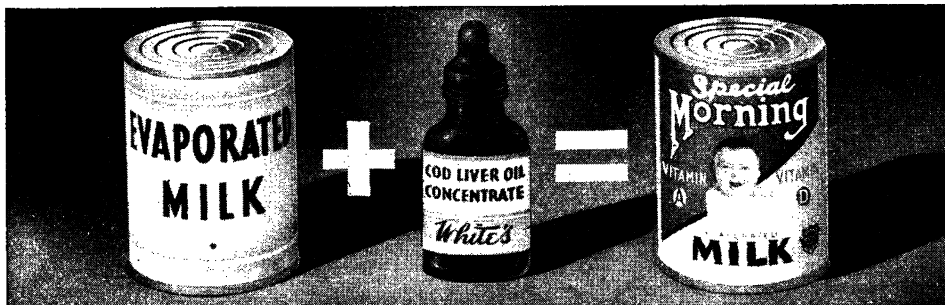
altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and in physical properties.

S. M. A. CORPORATION • 8100 McCORMICK BOULEVARD • CHICAGO, ILLINOIS

NOT ADVERTISED TO THE LAITY

The Morning Milk Company feels that all therapeutic claims should be disseminated exclusively through the medical profession. For this reason Special Morning Milk is not advertised to the laity. Furthermore, no formula instructions are distributed to the laity.

Special Morning Milk contains 500 units Vitamin D to the reconstituted quart (16 fluid oz. Special Morning Milk and 16 fluid oz. water). The Vitamin D added to Special Morning Milk is obtained from the natural source—cod liver oil. However, there is no cod liver oil taste in the milk.



BECAUSE THERE IS NO COD LIVER OIL TASTE IN SPECIAL MORNING MILK, THE ADMINISTRATION OF VITAMIN D IS GREATLY SIMPLIFIED.



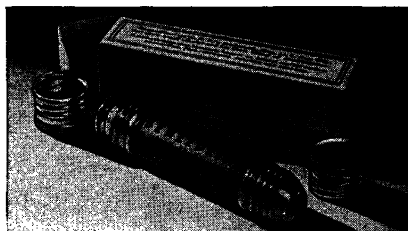
MORNING MILK COMPANY
STOCKTON, CALIFORNIA

WHEN A HEAD COLD BEGINS

Case No. 1 (C. S.) Male, white, age 25. Acute head cold. After a few inhalations from 'Benedrine Inhaler' the turbinates were shrunk to normal within seven minutes.



Fig. 1—Time 2:15 P.M.
Before treatment.



Each tube is packed with amphetamine, S. K. F., 325 mg.; oil of lavender, 97 mg.; menthol, 32 mg. 'Benedrine' is S. K. F.'s trade mark, Reg. U.S. Pat. Off.

'Benedrine Inhaler' is particularly valuable when used at the onset of a head cold—at the very first sneeze. By relieving congestion, it improves respiratory ventilation and assists in maintaining drainage of the nasal accessory sinuses.

The early use of 'Benedrine Inhaler' is especially indicated for your patients who catch cold easily.

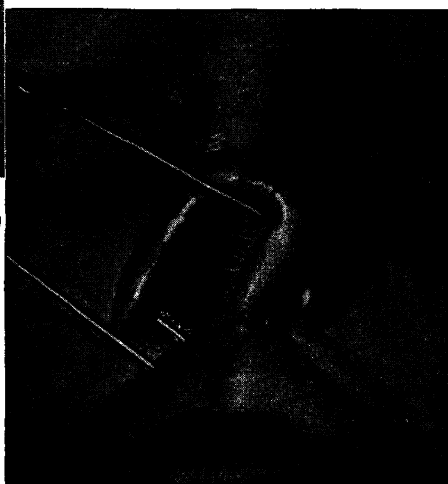


Fig. 2—Time 2:22 P. M.
After using 'Benedrine Inhaler'.



BENZEDRINE INHALER

A Volatile Vasoconstrictor

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

EST.  1841

Karo in High-Caloric Feeding

Infants . . .

KARO is ideal in concentrated milk mixtures because it is saturated with maltose-dextrins, easily digested, not readily fermented and does not cloy the appetite for other foods.

Children . . .

KARO provides 60 calories per tablespoon, added to foods and fluids, when the child fails to gain in weight on an adequate diet or his vitality is depleted during convalescence.

Adolescents . .

KARO is invaluable with each meal to help fulfill the enormous energy requirements of adolescence. Accessory meals may be prescribed with advantage and KARO added to foods and fluids.



CORN PRODUCTS REFINING COMPANY

*Invites inquiries from Physicians
... for further information*

17 BATTERY PLACE • NEW YORK CITY

1940

*The 34th
consecutive year of advertising
in California and Western
Medicine*



ELI LILLY AND COMPANY

In the past a frequent complaint from mothers was the expense incurred when the large bottle of antiricketic was accidentally upset.



"Busy fingers"

can't spill

OLEUM PERCOMORPHUM

Even if the bottle of Oleum Percomorphum is accidentally tipped over, there is no loss of precious oil nor damage to clothing and furnishings. The unique Mead's Vacap-Dropper* is a tight seal which remains attached to the bottle, even while the antiricketic is being measured out. Mead's Vacap-Dropper offers these extra advantages also, at no increase in price:

Unbreakable

Mead's Vacap-Dropper will not break even when bottle is tipped over or dropped. No glass dropper to become rough or serrated.

No "messiness"

Mead's Vacap - Dropper protects against dust and rancidity. (Rancidity reduces vitamin potency.) Surface of oil need never be exposed to light and dust. This dropper cannot roll about and collect bacteria.

Accurate

This unique device, after the patient becomes accustomed to using it, delivers drops of uniform size.

No deterioration

Made of bakelite, Mead's Vacap-Dropper is impervious to oil. No chance of oil rising into rubber bulb, as with ordinary droppers, and deteriorating both oil and rubber. No glass or bulb to become separated while in use.

How to Use MEAD'S Vacap-Dropper

Remove both top and side caps. Wipe dropper tip. Place forefinger firmly over top opening and regulate rate of flow by varying the degree of pressure. Oleum Percomorphum is best measured into the child's tomato juice. This is just as convenient and much safer than dropping the oil directly into the baby's mouth, a practice which may provoke a coughing spasm.



*Supplied only on the 50 c.c. size; the 10 c.c. size is still supplied with the ordinary type of dropper.

OLEUM PERCOMORPHUM
More Economical Now Than Ever

MEAD JOHNSON & CO., Evansville, Indiana, U. S. A.

U. S. Pat. Nos. 2105023 and 101875

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.

METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

IV. Measurement of Vitamin B₁ Activity

● The existence of the factor now known as vitamin B₁ was first established by the work of Eijkmann over four decades ago. In 1912, Funk (1) isolated a nitrogenous substance—capable of curing polyneuritis—to which he applied the provisional name of “beriberi vitamin.” Vitamin B₁, therefore, is the first of the essential food factors to be termed a vitamin.

Despite this fact, it has only been within recent years that specific biologic methods for estimation of this vitamin—free from the serious limitations of the earlier assay methods—have become available. Many of the earlier techniques were proposed before resolution of the “vitamin B complex” into its component factors. In addition, only within the past few years have reference standards of vitamin B₁ activity—the standard absorption product and thiamin—become generally and conveniently available for use in the quantitative determination of vitamin B₁.

As indicated in a recent review (2), modern bioassay methods for vitamin B₁ are quite diverse in detail. It is hoped that identification of this dietary essential (3) will soon bring a dependable chemical method for its estimation which will permit more extensive and reliable investigation of the vitamin B₁ activities of foods than has heretofore been possible. Recent advances in the science of nutrition, however, have brought definite refinement and improvement of modern bioassay methods for determination of the antineuritic factor.

In illustration, quite recently a rat curative technique employing crystalline thiamin chloride as the Reference Standard was endorsed by the U. S. P. Vitamin Advisory Board (4), for use in determining the vitamin B₁ activities of foods or other biological

materials which contain a sufficiently high concentration of the vitamin. In this method young rats (not exceeding 50 grams in weight or 30 days of age) are maintained on a specified vitamin B₁-deficient diet until their body stores of the vitamin are depleted as judged by the onset of acute polyneuritis. Such depleted animals are suitable for use in the assay proper provided the depletion period required for the development of acute polyneuritis has not exceeded 75 days.

To each properly prepared animal is administered a single dose of the reference standard of such size that a curative period of not less than 5 or more than 15 days will be produced. Each animal is then carefully observed until the exact degree of acute polyneuritis reappears, at which time an appropriate single dose of the material under assay is administered. The duration of the cure of polyneuritis is again observed. Only data obtained from successive administration to the same animal of reference standard and assay material (using not less than 8 rats) are to be considered. Data obtained from groups of rats in which the duration of the cure following the administration of assay material is equal to or greater than that produced by the reference standard are suitable for use in calculating the vitamin B₁ potency of the materials under assay.

As has been previously described (5), the effect of commercial canning on vitamin B₁ is variable and in any specific case largely depends upon the nature of the product itself. However, among the great variety of commercially canned products are many foods which—when included in the varied diet—will contribute valuable amounts of this essential vitamin.

AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

(1) 1912. J. State Med. 20, 341.

(2) 1938. J. Am. Med. Assn. 111, 927.

(3) 1938. J. Am. Med. Assn. 110, 727.

(4) 1939. J. Am. Pharm. Assn. 28, 267.

(5) 1939. The Canned Food Reference Manual, American Can Co., New York.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-fifth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

YOUR IDEAS—OR OURS

OR BOTH!

"ALL THINGS TO ALL MEN" must be the slogan of the printing house that aspires to a high percentage of usefulness.

Possibly your ideas may be of the nebulous sort that require the expert service of a good layout man, or artist.

Or, as frequently happens, your plans have been worked out along general lines, but would be all the better for the few suggestions that we might be able to make.

Printing that can make sales for its sponsors is the result of up-to-date equipment and skilled workmen—No doubt! But there's an added knack that comes from long experience. When a printer has that, your sales message really hums.

You have no printing need that we have not the talent and capacity to fill.

THE JAMES H. BARRY CO.

Telephone

UNDERhill

7 7 8 0

Printers and Publishers

ESTABLISHED 1879

170 South Van Ness Avenue
S A N F R A N C I S C O

SOBISMINOL MASS

SOBISMINOL SOLUTION SQUIBB



Sobisminol preparations contain a complex organic bismuth compound resulting from the interaction of sodium bismuthate, tri-isopropanolamine and propylene glycol. Supplied in appropriate dosage forms for oral and intramuscular use in the treatment of syphilis.

CAPSULES SOBISMINOL MASS SQUIBB for oral use contain 0.75 Gm. Sobisminol Mass and represent 150 mg. bismuth equivalent. In bottles of 100 and 1000 capsules. Aver. adult dose, 2 capsules, t. i. d.

SOBISMINOL SOLUTION SQUIBB for intramuscular use—each cc. represents 20 mg. of bismuth. In 1-cc. size ampuls—boxes of 12. In 2-cc. size ampuls in boxes of 12 and 100—50-cc. bottles. Aver. adult dose, 2 cc. twice weekly.

An effective spirocheticide for oral and for intramuscular use

Sobisminol Mass and Sobisminol Solution have been subjected to extensive pharmacologic and clinical study. The results of the studies indicate that these preparations are promptly and quite uniformly absorbed, usually well tolerated, and have a wide margin of safety. The bismuth therein is excreted at such rates and in such quantities as to indicate that there is little accumulation of the metal while the quantities retained are adequate for a sustained systemic antisymphilitic effect.

Sobisminol Mass, given orally, has been shown to have an antisymphilitic effect comparable to that produced by Sobisminol Solution and other soluble compounds of bismuth injected intramuscularly. The preparation has been administered orally daily for periods of many months without producing evidence of cumulative toxic effects. It can be used wherever bismuth therapy is indicated in the treatment of syphilis, including its use with one of the arsenicals or in alternate courses with arsenicals according to the preference of the clinician.

For literature address the Professional Service Department, 745 Fifth Ave., New York, N. Y.

E. R. SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858